

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

DATE: September 1, 1999

SUBJECT: Declaration of Strategy Approval

FROM: Joseph Dufficy, Chief
Brownfield/Early Action Section

TO: File

US EPA RECORDS CENTER REGION 5



470164

Attached is the declaration of strategy which was developed by the Site Assessment Team, reviewed and approved by the Regional Site Assessment Team. It has been duly noted in Wastelan as a Regional Decision Document.

Attachment

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
STRATEGY APPROVAL FOR THE OLD AMERICAN ZINC SITE

INTRODUCTION:

On January 27, 1999, the Site Assessment Team (SAT) for the Old American Zinc Site met to discuss the future for the above referenced site and develop this proposed strategy for the Regional Decision Team's (RDT) approval.

ASSESSMENT:

The Old American Zinc Plant Site is a 132-acre inactive industrial facility located along Kingshighway just north of East St. Louis. The Site is bordered by Delmar Street to the north, Kingshighway to the east, 45th Street to the west and the Penn Central and Baltimore/Ohio railroad tracks to the south. The area north of the Site is comprised of vacant lots and residences. Land use east of the Site is residential in the northeastern portion and industrial in the southeastern portion. Conrail, which loads and unloads semitrailers onto trains, and Aztec, a former fertilizer plant, lie south of the Site. Residential areas in Washington Park are located south of Conrail and Aztec, across the railroad tracks. A residential area borders the west Site boundary. The facility was constructed in the early 1900s and operated until 1967 as a primary zinc smelter. In 1967, the company moved to Sauget, Illinois. At this time, all structures were either moved, or torn down and disposed of off-site. The Site remained vacant until 1979 when XTRA Intermodal purchased the property. The Site was purchased as an area to store semi-trailers. The Site is vacant with the exception of a single building used as the offices of XTRA Intermodal. A number of semi-trailers are also stored on-site by XTRA Intermodal.

The Site is almost entirely covered with slag from the zinc smelters. Two large piles of slag exist in the northern section of the Site. The surface water pathway and soil exposure pathways are of great concern and could cause further problems both on and off-site.

In November 1994, USEPA tasked the Illinois Environmental Protection Agency (Illinois EPA) to conduct a CERCLA Integrated Site Assessment (ISA) at the Old American Zinc Plant Site. Groundwater migration was not thought to be a concern because most wells are located more than three miles from the contamination, and are upgradient. The surface water flows through small drainageways into a large wetland area. No contaminant airborne release was observed during the IA, although residents have complained of particulates blowing off-site. Numerous soil samples were taken from surrounding areas and

analyzed. Many of these samples indicated arsenic, cadmium, lead, and zinc at elevated levels.

On November 29 and 30, 1994, Illinois EPA took 5 waste samples on-site, and 17 soil and 9 sediment samples off-site. The on-site samples indicated methylene-chloride, semi-volatile, inorganic, and pesticide contamination. The off-site soil samples indicated increased levels of inorganic compounds at residences close to the Site. Sediment samples from Rose Creek, Schoenberger Creek, and the wetlands indicated mostly inorganic contamination.

STRATEGY:

The SAT requests that the RDT authorize the following actions at the Site:

RECOMMENDATIONS:

The SAT requests that the RDT authorize the following actions at the Site:

1. Region 5 should send an AOC and GNL to the three PRPs identified in the Enforcement Strategy of this document. The AOC will include, but not be limited to, the following work to be performed:

a. ~~Hot-spot~~ Soil Removal in Residential Yards

Use lead contaminant levels as the driver to determine which areas require excavation. The properties corresponding to samples X102 and X107 of Table 2 of this document clearly show the two highest contaminant levels. These two residential yards require soil removal and subsequent treatment. Region 5 may identify additional off-site or on-site ~~hot spots~~ requiring clean-up, prior to the AOC being signed.

b. Human Health and Ecological Risk Assessments

A Human Health Risk Assessment and an Ecological Risk Assessment are required to better understand the off-site and on-site risks. To collect meaningful data, more extensive sampling and analysis of waste, soil, surface water, groundwater, sediments, and air is required. In particular, wetlands, creeks, groundwater, and off-site soil need to be more extensively sampled and analyzed. Leachability of on-site waste must be established. Recommendations from the Toxicological and Ecological Assessments of this document should be incorporated in the sampling and analysis plan. After such comprehensive data is sampled and analyzed, the risk assessments should be prepared.

c. Engineering Evaluation/Cost Analysis (EE/CA)

An EE/CA should be performed that will identify clean-up alternatives, evaluate each alternative, and compare the alternatives to each other.

2. Completion of a Comprehensive PRP Search

Region 5 should conduct and complete a comprehensive PRP search. 104(e) request letters should be mailed as appropriate. General or special notice letters should be mailed as appropriate. Based on the results of these enforcement efforts, additional PRPs should be added to the AOC described above, as appropriate.

3. Further Study to Determine NPL Eligibility

If Region 5 cannot produce a signed AOC by one or more PRPs, the Region should consider listing the Site on the NPL. The preliminary HRS Site score of 61.97 is well above the 28.5 threshold for final listing of sites on the NPL.

1. Region 5 should send an AOC and GNL to the three PRPs identified in the Enforcement Strategy of this document. The AOC will include, but not be limited to, the following work to be performed:

a. ~~Hot-spot~~ Soil Removal in Residential Yards

Use lead contaminant levels as the driver to determine which areas require excavation. The properties corresponding to samples X102 and X107 of Table 2 of this document clearly show the two highest contaminant levels. These two residential yards require soil removal and subsequent treatment. Region 5 may identify additional off-site or on-site ~~hot spots~~ requiring clean-up, prior to the AOC being signed.

b. Human Health and Ecological Risk Assessments

A Human Health Risk Assessment and an Ecological Risk Assessment are required to better understand the off-site and on-site risks. To collect meaningful data, more extensive sampling and analysis of waste, soil, surface water, groundwater, sediments, and air is required. In particular, wetlands, creeks, groundwater, and off-site soil need to be more extensively sampled and analyzed. Leachability of on-site waste must be established. Recommendations from the Toxicological and Ecological Assessments of this document should be incorporated in the sampling and analysis plan. After such comprehensive data is sampled and analyzed, the risk assessments should be prepared.

c. Engineering Evaluation/Cost Analysis (EE/CA)

An EE/CA should be performed that will identify clean-up alternatives, evaluate each alternative, and compare the alternatives to each other.

2. Completion of a Comprehensive PRP Search

Region 5 should conduct and complete a comprehensive PRP search. 104(e) request letters should be mailed as appropriate. General or special notice letters should be mailed as appropriate. Based on the results of these enforcement efforts, additional PRPs should be added to the AOC described above, as appropriate.

3. Further Study to Determine NPL Eligibility

If Region 5 cannot produce a signed AOC by one or more PRPs, the Region should consider listing the Site on the NPL. The preliminary HRS Site score of 61.97 is well above the 28.5 threshold for final listing of sites on the NPL.

Attachments:

Site Location Map
Site Features Map
Health Consultation